**RNN**

INSTRUCTIONS:

[Lab - 4 template.py](https://canvas.asu.edu/courses/159370/files/75427568/download)[Download Lab - 4 template.py](https://canvas.asu.edu/courses/159370/files/75427568/download?download_frd=1)

This is a regression task where you are required to use an RNN (does not need to be RNN but also could be LSTM or GRU) model to predict the closing value of bitcoin of a day. The [official tutorial for RNNLinks to an external site.](https://pytorch.org/tutorials/intermediate/char_rnn_classification_tutorial.html) is for text classification, which is quite different from lab 3 (but reading them will definitely help for this lab), so you could just follow templates in the starter code for guidance.

1. Name your file **rnn.py**.
2. The data file is already located in the ./coin\_Bitcoin.csv of GradeScope but you can also download it [hereLinks to an external site.](https://drive.google.com/file/d/11jfMQaijGlqd7xZBuTcsKLe0xlZLadW0/view?usp=sharing" \t "_blank) if you want to test it on your local machine. Each row represents bitcoin information for one day, and please use **High**, **Low**, and **Open** columns as input features and use **Close** as the target value to predict. You are suggested to use numpy and pandas to read and preprocess the data.
3. Since this is a regression task, the only metric we are grading on is R2 score and it has to be greater than **0.8**. Please name your R2 score variable **r2score** so that GradeScope can find it and grade it.
4. Bullet points 3 and 5 from the CNN lab also apply here.